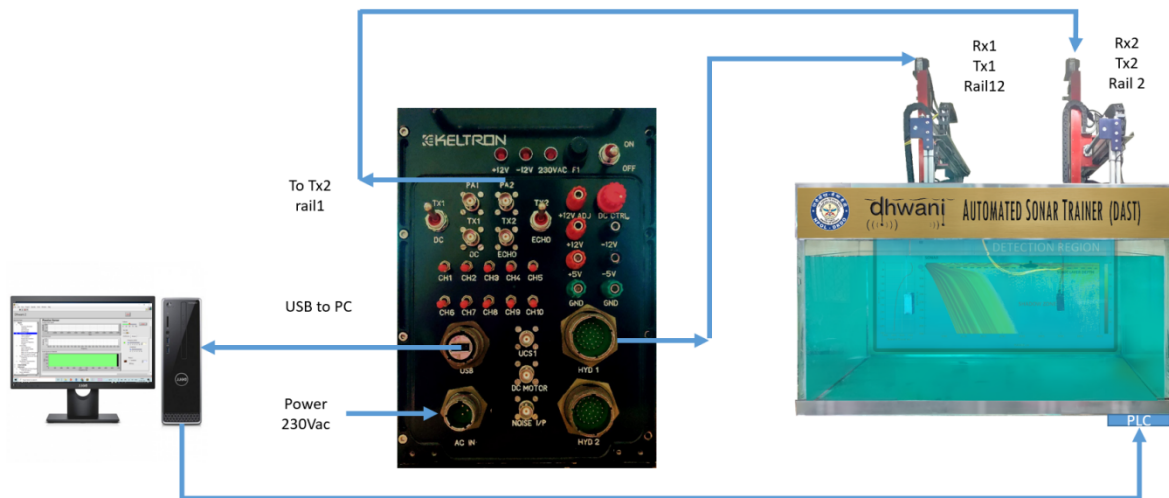


DHWANI - Automated SONAR Trainer (DAST)

NPOL has designed and developed Dhvani Automated Sonar Trainer (DAST). The system is fully automated so that the instructor can control the operation of acoustic tank from the GUI. This helps to understand the sonar working principles to different levels of naval personal. The system consist of fully Automated Acoustic Tank and Data acquisition system of 20 channel with power amplifier, PC and an LCD screen. The system is possible to customize experiments. The experiments have been set for different levels like Basic, Intermediate and Advanced which cover from Sailors, Inducting officers and Offices. The experiments are done with 200 KHz sensors. Different experiments includes Active sonar, Passive Sonar, Bottom characteristics, Beam pattern, Beam forming, Doppler, Different types of waveforms, effect of different signals, effect of materials, effect of aspects, UCS, etc.



Interested Industries are requested to forward their Expression of Interest (EoI) to Director NPOL, Kochi (with attachments of supporting documents) with a copy to Director DIITM, DRDO HQ (without attachment) on following address:-

Director
Naval Physical & Oceanographic Laboratory
Thrikkakara, Kochi-682021
Phone : 0484-2424878
Fax : 0484-2424858
E-mail ID: director@npol.gov.in

Copy to

Director
Directorate of Industry Interface & technology Management (DIITM)
Room No. 447, DRDO Bhawan, DRDO HQrs, Rajaji Marg, New Delhi-110011
Phone: 011-23013209/23015291
Fax: 011-23793008
Email ID: diitm@hqr.gov.in

List of Support documents to be attached with EoI

- a) Memorandum and Articles of Association (Should be incorporated as per Indian Companies Act, as amended time to time)
- b) Certificates of registration as a manufacturing unit, if any.
- c) Audited Balance Sheet for the preceding three years.
- d) Income Tax returns for the preceding three year period
- e) Details of shareholding/ownership pattern especially foreign partners/ shareholders, foreign employees, directors, etc. The company must adhere to the prevailing Govt of India policies and regulations on Foreign Direct Investment (FDI)/DIPP norms as applicable.
- f) Annual budget for R&D during last three years.
- g) Numbers and details of IPR or patents, etc., held by the company.
- h) Number of technically or professionally qualified personnel.
- i) Record of past performance (e.g., Supply orders executed against of Ministry of Defence orders, Public Sectors and Paramilitary Forces, if any).
- j) Availability of adequate infrastructure (List of machines and their production capacities) and technical expertise.
- k) List of Testing and Support equipment's
- l) ISO/ ISI certification or any other certification
- m) Relevant clearances form the authorities/ ministries (if any)
- n) Capacity and capability to undertake developmental work and to accept attendant financial and commercial risks.
- o) Capacity/capability to market the product through the marketing network, sales and service network, reliability to maintain confidentiality.
- p) PESO and DPIIT license for explosive handling if ToT is for high energy Material, explosives, propellants, and component/ system dealing with it etc (if applicable).
- q) Under taking form company seeking ToT that none of its Directors, Independent Directors, non-executive Directors, Key management personnel are involved in any corrupt practices, unfair means and illegal activities.
- r) Details of the industrials license for defence manufacturing be provided by the industry seeking ToTs.